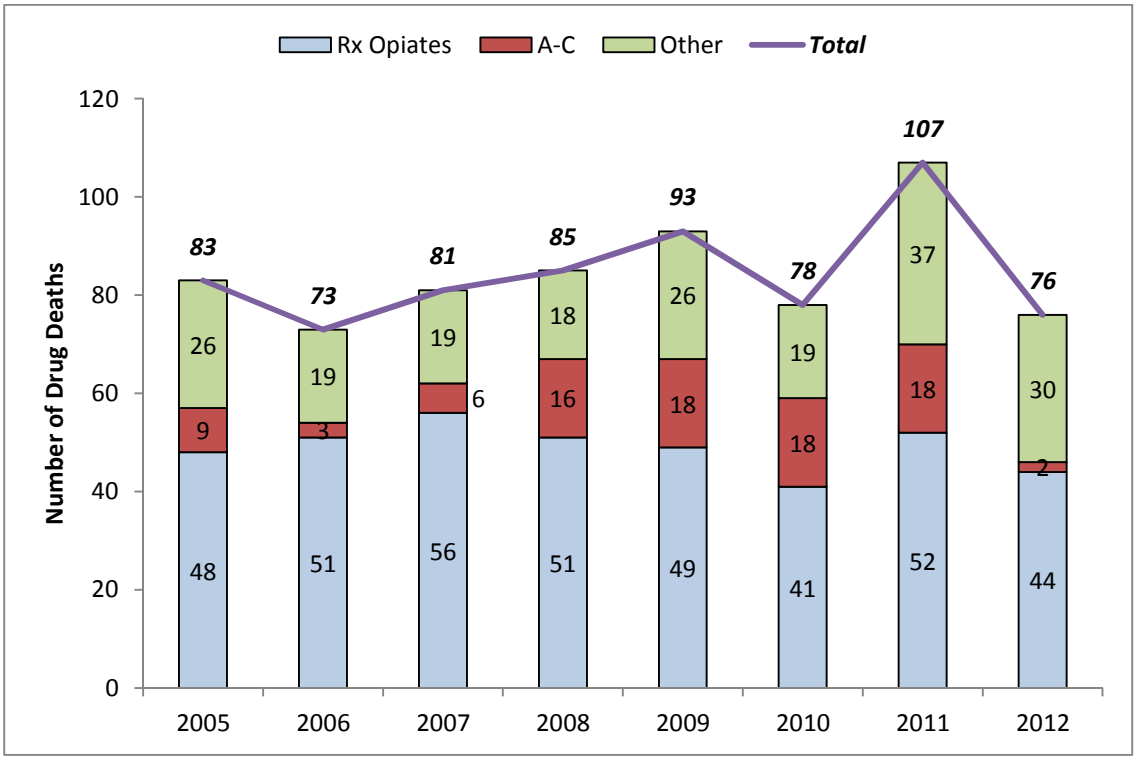
Data Brief: Vermont Drug Mortality Data 2004-2012

Summary: Vermont drug mortality data come directly from the Office of the Chief Medical Examiner. This data brief presents data from January 1, 2004 to December 31, 2012. Drug mortality data are reported to the Alcohol and Drug Abuse Programs in the Department of Health on a monthly basis from the Office of the Chief Medical Examiner. Variation in the number of all drug deaths **do not show a specific trend**. In 2011 there was a **spike** in all categories of drug deaths.

Analysis: Public attention has been primarily focused on prescription opiate misuse and abuse, consequently this analysis focuses on prescription opiate overdose deaths. It is important to note that most drug deaths are due to combinations of substances, not a single drug (for example, a prescription opiate and cocaine). Figure 1 shows the number of deaths attributed to any of three categories: opiates available by prescription; anti-coagulants; and all other deaths, including legal drugs such as anti-depressants and acute alcohol poisoning, and illegal drugs such as cocaine. These categories are mutually exclusive, and if there was a prescription opiate present, the death was categorized as prescription opiate regardless of whether another drug was identified.

Figure 1. Total number of deaths associated with prescription opiates (Rx Opiates), anticoagulants (A-C) and other drugs (Other) January 1, 2004 through December 31, 2012. Categories are mutually exclusive, categories add to a total number of drug deaths.



The prescription opiate category includes drugs such as Tramadol, which is not a controlled substance, as well as controlled substances such as Oxycodone, Hydrocodone and Methadone. The anticoagulant category includes all deaths due to complications from this drug. Anti-coagulants are "blood thinners"

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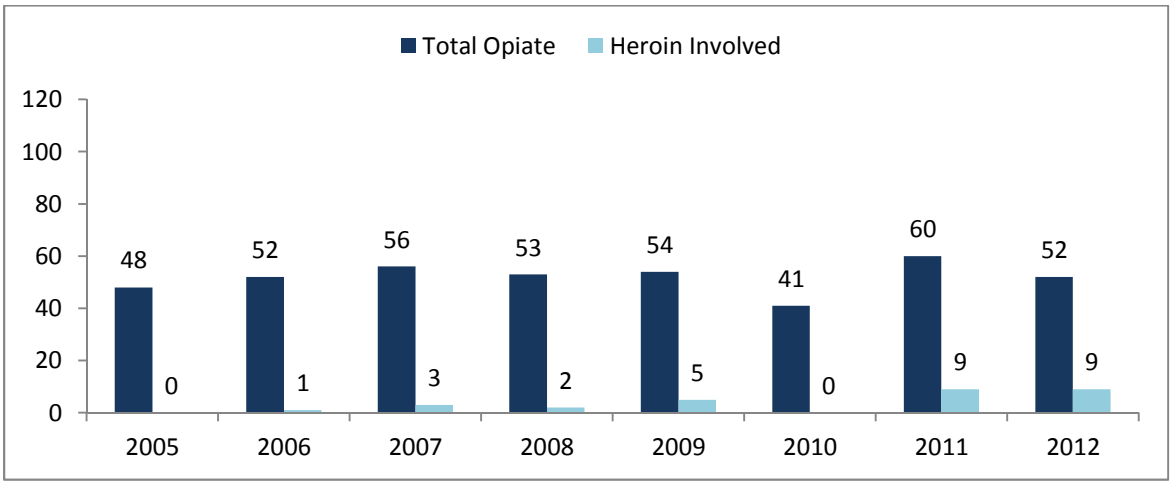
given to people with cardiac or stroke histories and do not have any abuse potential. The typical mechanism is internal bleeding due to a fall[1].

In addition to all drug deaths, and prescription opiate deaths, there has been growing interest in the number of deaths involving heroin. Figure 2 shows the deaths that involved all opiates (prescription opiates and heroin), and those that involved heroin (note that the heroin deaths are included in the "all opiate category," these are not mutually exclusive). Again, there is **no specific trend** in deaths due to all opiates or deaths involving heroin in the past nine years.

Figure 2. Number of deaths involving any opiate and any heroin.
January 1, 2004 through December 31, 2012
Categories are not mutually exclusive, do not add categories.



In addition to the type of drug implicated in the cause of death, the manner of death is also recorded. In 2008 the Chief Medical Examiner added "natural" to the causes of death in the drug death data. Table 1 shows the manner of death for all of the drug deaths in any given year between 2004 and 2012. The data show no exact pattern, aside from the spike referenced above in 2011.

Table 1. Manner of death by year for all deaths involving a drug, 2004-2012

Year	Accidents	Suicides	Undetermined	Natural	Homicide
2005	60	15	8	NA	0
2006	56	15	2	NA	0
2007	56	16	9	NA	0
2008	67	11	2	5	0
2009	68	14	10	1	0
2010	44	21	9	4	0
2011	72	21	9	4	1
2012	52	13	8	3	0

[1] For additional information see Edwards, Searles, & Shapiro (2011). Deaths involving drugs in Vermont, 2004-2010. Archives of Internal Medicine, 171, 1676-1678.

Conclusion: According to data from the Office of the Chief Medical Examiner, mortality due to drugs in Vermont has not changed greatly over the past nine years. There was a spike in deaths in 2011, however, the number of deaths in 2012 is similar to the number of deaths in 2010. Furthermore, these data do not suggest that deaths from any one specific type of drug is increasing or decreasing over the span of multiple years. Finally, it is notable that suicide is a significant contributor to the drug death, forming 17% of the 2012 deaths associated with drugs in Vermont.

Sources: All data is from the Office of the Chief Medical Examiner.

This brief is a joint product of the State Epidemiological Outcomes Workgroup (John S. Searles, Ph.D., Chair) and Vermont Department of Health, Health Surveillance, Shayla Livingston, MPH.

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